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# Age and stratigraphical position of Sardar Formation conglomerate in view of sequence stratigraphy,Central Iran

M. N. Gorgij, M. Boomeri, M. R. Bakhshi Mohebi
Geology Department, University of Sistan and Baluchistan, Zahedan, Iran

Sardar Formation outcropped in the different parts of Central Iran specially in the Shotori Range, Ozbak-kuh, Shirgesht, Anarak, Kerman and south of Lut Block (Bazman area) and predominantly consists of pale green shale with intercalations of sandstone. In the Anarak and Ozbak-kuh are increased the amount of the northern and western parts, greatly, consists from carbonate and shaley deposits and in the south part are contained clastic facies.In the some of outcrops, Sardar Formation, discontinuously overlying different parts of the Shishtu Formation with different age. The thickness of conglomerate (Sardar conglomerate) in the Kal-e-Sardar and Ozbak-kuh is 30m and in the Howz-e-Dorah is 4m.Change in the conglomerate thickness related to different amount and rate of truncation by erosional processes before the deposition of the Sardar conglomerate. The widespread field studies shows that Sardar conglomerate has formed in the bottom of incised valley (Ozbak-kuh and Kal-e-Sardar areas) and interfluve areas (Howz-e-Dorah). Channels and valleys, that are as sequence boundary, shows that the falling of sea-level in the Late Visean. Ideally, falling of sea-level in Late Visean accompanied with conglomerate formation in the Ozbak-kuh, Kal-e-Sardar, Howz-e-Dorah and with the development of evaporite deposits in Kalmard and shale and gypsiferous marl in the Anarak areas that in view of sequence stratigraphy are considered as Lowstand System Tract. With respect to the age of the first depositional sequence of Sardar Formation (Serpukhovian-Bashkirian in age), stratigraphic position of conglomerate and the existence of foraminiferas such as *Polysphaerinella bulla* and *Umbella bekovae* in the conglomarate pebbles, could be considered Late Visean-pre Serpukhovian age for Sardar conglomerate. Therefore Sardar-Shishtu Formations boundary which is determined with conglomarate, correlated with boundary of Kaskaskia I and Kaskaskia II super cycle that shows Visean-Serpukhovian age.